JOURNAL OF RESEARCH of the National Bureau of Standards—Mathematical Sciences
Vol. 77B, Nos. 3 and 4, July–December 1973

INDEX TO VOLUME 77B

January–December 1973

Page

A

Accuracy 143
Analysis 11
Angular field of values 61
Application of Schur's lemma on irreducible sets of matrices in continuum mechanics 73
Approximating 143
Asymptotic expansion 143
Atkin, A.O.L., On a functional equation 11
Automated testing 101
Automorphic functions 85

B

Backward recursion 111, 125, 133
Baker's extrapolation method 45
Balanced incomplete block designs 15
Bessel function 111, 133
Bessel functions 111, 115, 125
Bessel functions I and J of complex argument and integer order 111
Bessel functions of real argument and integer order 125
Bit comparison 101, 115, 133
Blocks 53

C

Catalog of minimal blocks 53
Cauchy distribution 143
Central idempotent 93
Certification of an algorithm for Bessel functions of complex argument 133
Certification of an algorithm for Bessel functions of real argument 115
Character induced subgroups 93
Character of central type 93
Characteristic function 143
Characterizations of $(A_q(U))$ 85
Closed forms 143
Combinatorics 1
Combinatories 53
Connectivity 1
Continuous 11
Continuum mechanics 73
Contour 143
Convergence-curves 143
Convex hull 137
Crow, E. L., Holt, D. R., Tables and graphs of the stable probability density functions 143

D

Dedekin function 81
Difference equation 111, 125
Distribution function 143

Page

E

Edmonds, J., Young, P., Matroid designs 15
Eigenvalues 61
Elasticity 73
Equation 11
Error 143
Error bounds 111, 115, 125, 133
Examples of graphs 53
Extrapolation 45
Extrapolation techniques related to transcendence proofs 45
Euler graphs 1

F

2-Factors 1
Field of values 61
Fong, J. T., An application of Schur's lemma on irreducible sets of matrices in continuum mechanics 73
FORTRAN library 101
Fourier transform 143
Frobenius reciprocity 93
Function 11
Function validation 101

G

Graph theory 1, 53
Group algebra 93

H

Hamiltonian circuits 1
Hamiltonian connected 1
Hardy spaces 85
Hermite interpolation formula 45
Hermitian 61
Hobbs, A. M., A catalog of minimal blocks 53
—, Some Hamiltonian results in powers of graphs 1
Holt, D. R., Crow, E. L., Tables and graphs of the stable probability density functions 143

I

Inertia 61
Infinite series 141
Integration 73
Interpolation 143

J

Johnson, C. R., Newman, M., Triangles generated by powers of triplets on the unit circle 137

Page

K

Knopp, M. I., Remarks on a problem of Rademacher in the theory of modular forms 81

L

Limit distribution 143
Lozier, D. W., Maximon, L. C., Sadowski, W. L., Performance testing of a FORTRAN library of mathematical function routines—A case study in the application of testing techniques 101

M

Mathematical functions 101
Matrix calculus 73
Matrix identity 73
Matrix theory 73
Matroid designs 15
Matroids 15
Maximon, L. C., Lozier, D. W., Sadowski, W. L., Performance testing of a FORTRAN library of mathematical function routines—A case study in the application of testing technique 101
Merris, R., Watkins, Wm., Character induced subgroups 93
Miller algorithm 111
Miller algorithms 125
Minimal blocks 53
Modular form 81

N

Newman, M., Johnson, C. R., Triangles generated by powers of triplets on the unit circle 137
Normal distribution 143

O

On a functional equation 11
On the eigenvalues of $A+B$ and AB 61
Orthogonality relations 93

P

Partition function 81
Performance testing of a FORTRAN library of mathematical function routines—A case study in the application of testing techniques 101
Performance tests 101
Planar graphs 53
Poincaré series 81
Polynomials 143
Positive semidefinite 61
Powers of graphs 1
Probability density function 143

Q

Quadrature 143

Page

R

Real 11
Reducibility 73
Relative error 133
Remarks on a problem of Rademacher in the theory of modular forms 81

S

Sadowski, W. L., Lozier, D. W., Maximon, L. C., Performance testing of a FORTRAN library of mathematical function routines—A case study in the application of testing techniques 101
Schur's lemma 73
Sheingorn, M. E., The characterizations of $(A_\theta(U))$ 85
Some Hamiltonian results in powers of graphs 1
Sookne, D. J., Bessel functions I and J of complex argument and integer order 111
—, Bessel functions of real argument and integer order 125
—, Certification of an algorithm for Bessel functions of complex argument 133
—, Certification of an algorithm for Bessel functions of real argument 115
Stable distribution 143
Stolarsky, K. B., Extrapolation techniques related to transcedence proofs 45
Strain energy 73
Sums of independent random variables 143

T

Tables 143
Tables and graphs of the stable probability density functions 143
Tensor product 93
Thickness of graphs 53
Transcendence proofs 45
Transcendental numbers 45
Triangles generated by powers of triplets on the unit circle 137
Truncation 143
Two-connected graphs 53

U

Unit circle 137

W

Watkins, Wm., Merris, R., Character induced subgroups 93
Weyl's theorem 137
Wielandt, H., On the eigenvalues of $A+B$ and AB 61

Y

Young, P., Edmonds, J., Matroid designs 15

U. S. GOVERNMENT PRINTING OFFICE : 1973 O - 507-714

XU